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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/627,006      | 07/25/2003  | W. Brett Wilson      | 2000.005            | 3714             |

7590 03/18/2005

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EXAMINER


BEACH, THOMAS A

ART UNIT PAPER NUMBER

3671

DATE MAILED: 03/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |                                      |   |  |
|--|--------------------------------------|---|--|
| <br><b>Office Action Summary</b> | <b>Application No.</b><br>10/627,006 | <b>Applicant(s)</b><br>WILSON, W. BRETT |  |
|  | <b>Examiner</b><br>Thomas A Beach    | <b>Art Unit</b><br>3671                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-19 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/25/03</u> . | 6) <input type="checkbox"/> Other: ____.  |



## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," "The invention provides," etc.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the one ore more production risers, umbilical, carrier pipe structural member, injection risers and multiple hybrid riser towers must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure

is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shotbolt 4,793,737 in view of Thiebaud et al 6,082,391. Shotbolt shows a fluid transfer system for use in offshore hydrocarbon producing operations (fig. 4), having a riser (lower 27 just below 3) extending upwardly from the sea floor to a location substantially below the wave zone of the body of water; a variable buoyancy device 3 (see claim 6 of Shotbolt), to which the upper end of said hybrid riser tower is attached, capable of maintaining said hybrid riser tower in a substantially vertical

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orientation (section just below 3); one or more steel catenary risers (unnumbered catenary risers from 1 to 3) extending upwardly from the sea floor and attached at their upper ends to said variable buoyancy device; and one or more flexible pipe jumpers 10 extending from said variable buoyancy device to a surface production facility so as to allow fluid communication between said steel catenary riser terminating at said variable buoyancy device and the surface production facility. Shotbolt does not disclose the riser 27 to be a hybrid riser tower; however, Thiebaud shows a similar fluid transfer system for use in offshore hydrocarbon producing operations having a hybrid riser tower (multiple hybrid riser towers, figures 6-7; claim 8) that include one or more risers (fig. 7), one or more umbilicals (24), a carrier pipe structural member (23) and injection risers (col. 3-4, lines 65-67 & 1-6; claims 5-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shotbolt, as taught by Thiebaud, to include a hybrid riser tower to control displacement of the risers due to hydrodynamic action from the current to prevent excessive wear and damage to the risers.

As concerns claim 2, the combination shows the surface production facility comprises a floating production facility (Shotbolt 2).

As concerns claim 3, the combination shows mid-depth transfer lines 44 extending from said variable buoyancy device to another surface production facility (Shotbolt, fig. 3 & col. 4, lines 7-14).

As concerns claim 9, the combination shows the variable buoyancy device has means for varying the buoyancy of said variable buoyancy device (see claim 6 of Shotbolt).

As concerns claim 11, the combination shows steel catenary risers extend from said variable buoyancy device to remote production and processing facilities.

As concerns claim 12, the combination shows the hydrocarbon fluids from one or more subsea wells (Shotbolt , 1) are transported from the sea floor to said floating production vessel through at least one hybrid riser tower and at least one flexible pipe jumper.

As concerns claim 13, the combination shows the hydrocarbon fluids are exported from said surface production facility through at least one flexible pipe jumper and at least one steel catenary riser (Shotbolt, 27, disclosed as an export riser, thus as combined the hybrid tower also is capable of exporting fluid).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shotbolt 4,793,737 and Thiebaud et al 6,082,391 in view of de Baan et al 5,275,510. The combination does not show a mid-depth transfer lines extending from said variable buoyancy device to an offloading buoy; however, de Baan shows a similar fluid transfer system for use in offshore hydrocarbon producing operations having show a mid-depth transfer lines 28, 30 extending from said variable buoyancy device 42 to an offloading buoy. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination, as taught by de Baan, to include to an offloading buoy since Shotbolt discloses the use of and shows that the use

of an offloading is well know in the art and thus provides means for ships to load production fluid in multiple locations without the expense of maintaining a facility at each location.

***Allowable Subject Matter***

6. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claims 14-19 are allowed.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A Beach whose telephone number is 703.305.4848. The examiner can normally be reached on Monday-Thursday, 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Will can be reached on 703.308.3870. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9306 or

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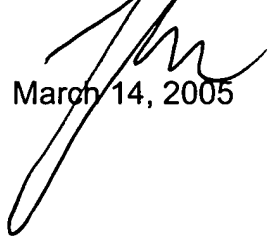
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703.872.9306 for regular communications and 703.872.9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.4198.

Thomas A. Beach

A handwritten signature in black ink, appearing to be 'T. Beach', written over the printed name and date.

March 14, 2005

**THOMAS A. BEACH**  
Patent Examiner  
Group 3600